



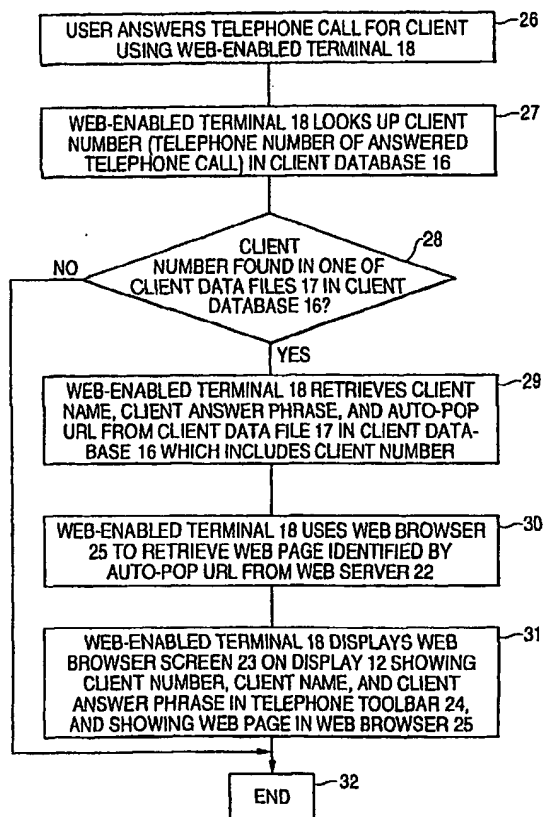
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(54) Title: TELEPHONE NUMBER/WEB PAGE LOOK-UP APPARATUS AND METHOD

(57) Abstract

A telephone number/Web page look-up apparatus (Fig. 5) may be implemented in a telephone answering apparatus (15) for answering telephone calls made to telephone numbers to be answered by the answering apparatus. The answering apparatus includes a storage device (16) storing information linking at least one of the telephone numbers for which telephone calls are being answered to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number. A look-up device (18) looks up the telephone number of each call answered and if found in the storage device, retrieves the URL identifying the Web page associated with the telephone number. A Web page display device (18) displays on display (12) the Web page associated with the telephone number in response to the retrieved URL.



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**TELEPHONE NUMBER/WEB PAGE
LOOK-UP APPARATUS AND METHOD**

TECHNICAL FIELD

5 The present invention relates to a telephone
number/Web page look-up apparatus and method. A
telephone number/Web page look-up apparatus according to
the present invention may be implemented in a telephone
answering apparatus including a Web-enabled terminal
10 which automatically displays a Web page (a page on the
World Wide Web) associated with a telephone number for
which telephone calls are being answered by the telephone
answering apparatus when a user answers a telephone call
to the telephone number using the Web-enabled terminal.

BACKGROUND ART

15 Telephone answering apparatuses are well known in
the art. Typical applications of telephone answering
apparatuses are in telephone answering services, call
centers, and desktop applications.

20 A telephone answering service using a telephone
answering apparatus typically answers telephone calls for
clients it services. Telephone calls to clients'
telephone numbers are redirected to the telephone
answering service where they are answered by operators of
a telephone answering apparatus in a manner specified by
25 the clients, which may be intended to give the impression
that the telephone calls are being answered by the
clients themselves. The telephone answering apparatus
typically provides the operators with the capability to
record text messages from callers which the operators
30 later read back to the clients, to forward telephone
calls to a voice mail system from which the clients later
retrieve messages from callers, and, if applicable, to
provide other telephone call processing operations
specified by the clients, such as taking orders from

callers for products and services offered by the clients. The telephone answering apparatus also typically includes an auto attendant which automatically answers telephone calls without requiring an operator's attention for
5 clients who have selected this option. The auto attendant typically uses interactive voice response techniques to enable callers to use Touchtone keys to select how their telephone calls are to be processed. For example, the auto attendant may enable the callers to
10 select to have their telephone calls transferred to another telephone number, to the voice mail system, or to an operator of the telephone answering apparatus. A typical example of a client of telephone answering service is a doctor's office for which the telephone
15 answering service answers telephone calls outside normal business hours.

A call center using a telephone answering apparatus is similar to a telephone answering service and provides basically the same services as a telephone answering
20 service, except that a call center typically answers telephone calls for a single client, which typically operates the call center, while a telephone answering service typically answers telephone calls for a number of clients, none of which operate the telephone answering
25 service. A typical example of a call center is a customer service department of a business.

A desktop application using a telephone answering apparatus is typically implemented on a PC (personal computer) or a workstation used by an individual user,
30 and enables the individual user to answer and process his telephone calls in basically the same manner as a telephone answering service. In this case, the individual user is the client. Typical environments for desktop applications using a telephone answering
35 apparatus include a business environment, a SOHO (small

office home office) environment, and a home or personal use environment.

5 The term "client" in the present application means any entity whose telephone calls are being answered by a telephone answering apparatus, such as a business, a specific department of a business, or an individual user.

10 The term "user" in the present application means any person who uses a terminal to answer telephone calls to telephone numbers for which telephone calls are being answered by a telephone answering apparatus, such as an operator in a telephone answering service, an operator in a call center, or an individual user.

15 The term "terminal" in the present application means any device which is used by a user to answer telephone calls to telephone numbers for which telephone calls are being answered by a telephone answering apparatus, such as an operator station of a telephone answering service, an operator station of a call center, or a personal computer or a workstation used by an individual user.

20 Fig. 1 shows a conceptual diagram of an example of a prior-art telephone answering apparatus 1 which includes a telephony interface 4, an auto attendant 5, a voice mail system 6, a text message system 7, a client database 8 storing client data files 9, a terminal 10, an audio headset 11, a display 12, a keyboard 13, and a mouse 14.

25 Although Fig. 1 shows a mouse 14, which is a conventional example of a pointing device, it will be apparent to one of ordinary skill in the art that any other conventional pointing device may be used in place of mouse 14.

30 Although Fig. 1 shows a single terminal 10, a plurality of terminals may be provided when necessary, such as in a telephone answering service which answers telephone calls for a number of clients, or in a call center which answers telephone calls for a large client.

Telephony interface 4 is operatively connected by telephone line(s) 3 to a telco (telephone company) 2, such as a public or private switched telephone network.

5 Auto attendant 5 is operatively connected to telephony interface 4, voice mail system 6, and terminal 10, and automatically answers telephone calls without requiring a user's attention for clients who have selected this option. Auto attendant 5 uses interactive voice response techniques to enable callers to use
10 Touchtone keys to select how their telephone calls are to be processed. For example, auto attendant 5 may enable the callers to select to have their telephone calls transferred to another telephone number, to voice mail system 6, or to terminal 10 for answering by a user.

15 Terminal 10 is operatively connected to telephony interface 4, auto attendant 5, voice mail system 6, text message system 7, client database 8, audio headset 11, display 12, keyboard 13, and mouse 14, and enables a user to use audio headset 11, display 12, keyboard 13, and
20 mouse 14 to answer and process telephone calls for clients received from telco 2 over telephone line(s) 3. The telephone calls may arrive at terminal 10 directly from telephony interface 4, or indirectly from telephony interface 4 via auto attendant 5. Terminal 10 enables
25 the user to take messages from callers using audio headset 11 and record the messages using display 12, keyboard 13, and mouse 14 for storage in text message system 7, or to forward telephone calls to voice mail system 6 at the callers' request. If applicable,
30 terminal 10 also enables the user to provide other telephone call processing operations specified by the clients using audio headset 11, display 12, keyboard 13, and mouse 14 as necessary, such as taking orders from callers for products and services offered by the clients.

35 Client database 8 stores a client data file 9 for each client whose telephone calls are being answered by

prior-art telephone answering apparatus 1. Client data file 9 includes data items which provide information identifying the client and specifying how the client's telephone calls are to be answered and processed. These data items are well known in the art. Auto attendant 5 and the user of terminal 10 answer telephone calls for the client based on the data items in client data file 9, which include a data item specifying whether telephone calls for the client are to be answered initially by auto attendant 5 or by the user of terminal 9. Such a data item is well known in the art.

It is noted that the connections between the elements of prior-art telephone answering apparatus 1 shown in Fig. 1 are conceptual connections, and do not necessarily represent actual physical connections. As will be apparent to one of ordinary skill in the art, the conceptual connections shown in Fig. 1 may be implemented with many different actual physical connections, which may include direct-wired connections, bus connections, network connections, and any other connections which are known in the art.

Furthermore, it is noted that prior-art telephone answering apparatus 1 shown in Fig. 1 is merely exemplary, and many modifications of prior-art telephone answering apparatus 1 will be apparent to one of ordinary skill in the art.

Examples of prior-art telephone answering apparatus 1 shown in Fig. 1 are disclosed in U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 which are assigned to the assignee of the present application. The contents of U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 are incorporated herein by reference in their entirety.

U.S. Patent Nos. 4,916,726 and 5,420,852 each include a microfiche appendix listing a computer program for implementing an embodiment of prior-art telephone answering apparatus shown in Fig. 1 using IBM
5 AT-compatible PCs.

An example of a device which may be used to implement telephony interface 4, auto attendant 5, text message system 6, voice mail system 7, and client database 8 of prior-art telephone answering apparatus 1
10 shown in Fig. 1 is the commercially available Amtelco Infinity CTI (computer-telephony integration) server, version 4.4.0j, which was available from American Tel-A-System, Inc. (Amtelco), McFarland, Wisconsin, the assignee of the present invention, as of the filing date
15 of the present application. The Amtelco Infinity CTI server is based on an IBM AT-compatible PC.

An example of a device which may be used to implement terminal 10 of prior-art telephone answering apparatus 1 shown in Fig. 1 is a commercially available
20 IBM AT-compatible PC running an Amtelco DOS (disk operating system) terminal application program which was available from Amtelco as of the filing date of the present application for use with the Amtelco Infinity CTI server.

Although specific capabilities and applications of telephone answering apparatuses have been described
25 above, it is noted that other capabilities and applications of telephone answering apparatuses are well known in the art, and that further capabilities and
30 applications of telephone answering apparatuses will be apparent to one of ordinary skill in the art.

Over the past several years, the use of the Internet and the World Wide Web by organizations and individuals has increased dramatically, and is continuing to increase
35 at a rapid rate.

Many organizations, such as businesses, not-for-profit organizations, educational institutions, and governmental agencies, have implemented sites on the World Wide Web (Web sites) including one or more pages (Web pages) which provide information about the organizations and products and services they offer. These Web sites may enable individuals to interact with the organizations, such as by ordering products and services directly from the organizations via the Web sites.

Also, many individuals have implemented Web sites including one or more Web pages which provide information about themselves and topics they are interested in.

As is well known in the art, Web sites may also be implemented on an intranet, which is basically similar to the Internet, except that an intranet is typically implemented by an organization or individual primarily for exclusive use by that organization or individual. However, the organization or individual may also permit outsiders to use its intranet.

Web pages may include many different types of information which are well known in the art, such as HTML (hypertext markup language) documents, Java scripts, and ActiveX scripts.

Web pages are identified by a unique Internet or intranet address known as a URL (universal resource locator), which is well known in the art. A Web page may be displayed on a display of a PC using a software application known as a Web browser running on the PC by entering the URL of the Web page in a URL field in a screen displayed by the Web browser. Many different Web browsers are well known in the art.

The information available on Internet and intranet Web sites that have been implemented by organizations and individuals can only be accessed by individuals who have access to the Internet. Although the number of

individuals who have access to the Internet has increased dramatically over the past several years, there are still many individuals who do not have access to the Internet. Furthermore, even though an individual may have access to the Internet, he may not be aware that a particular organization or individual he is interested in contacting or learning more about has implemented an Internet or intranet Web site, or he may not be permitted to access a particular intranet Web site he is interested in.

Many organizations and individuals which have implemented Web sites also use telephone answering apparatuses, either directly, such as in call centers which they operate or desktop applications they use, or indirectly, such as in telephone answering services of which they are clients.

It would be desirable if a terminal in a telephone answering apparatus could automatically display a Web page from a client's Web site when a user answers a telephone call for the client, and provide the user with the capability of navigating through the Web site while processing the telephone call. This would enable the user to quickly provide information available on the client's Web site to the caller. However, prior-art telephone answering apparatuses do not have this capability.

The article "MULTI CALL: WebCall--a real Virtual Call Centre", M2 Presswire, November 27, 1995, describes WebCall, a virtual call center which provides Web pages which a customer can access with a Web browser. If the customer requires support while browsing the virtual call center Web pages, he can click on an embedded telephone graphic, which will cause WebCall to place locate and place a telephone call to a dedicated or virtual agent who has the necessary skill set, compatible with the customer's known or assumed characteristics, and transfer the telephone call and the relevant Web page to the

agent's desktop. However, in this case, the Web page which is displayed on the agent's desktop when the agent answers the customer's telephone call was selected by the customer, rather than being automatically displayed in response to the customer's telephone call. Thus, the M2 Presswire reference does not disclose automatically displaying one of the virtual call center Web pages when an agent answers a telephone call from customer calling the virtual call center.

U.S. Patent No. 5,793,861 to Haigh discloses a transaction processing system and method which includes a telephone answering apparatus, and has the capability of receiving data transmissions from the Internet and the World Wide Web and identifying and storing Internet addresses of the received data transmissions. However, Haigh does not disclose automatically displaying a Web page from a client's Web site when a user of the telephone answering apparatus answers a telephone call for the client.

U.S. Patent No. 5,724,412 to Srinivasan discloses a method and system for providing a telephony subscriber with Internet information related to a caller calling the subscriber. In one of the embodiments disclosed by Srinivasan, a Web page related to a caller is automatically displayed on the subscriber's equipment when the caller calls the subscriber. However, Srinivasan does not disclose automatically displaying a Web page of the subscriber when a caller calls the subscriber.

Thus, the M2 Presswire reference, Haigh, and Srinivasan do not disclose a telephone answering apparatus which automatically displays a Web page from a client's Web site when a user answers a telephone call for the client.

DISCLOSURE OF INVENTION

The present invention provides a telephone answering apparatus including a Web-enabled terminal having a telephone number/Web page look-up feature and a Web browser feature which enable the Web-enabled terminal to automatically display a Web page from a client's Web site when a user answers a telephone call for the client using the Web-enabled terminal.

Stated in another way, the present invention provides a telephone answering apparatus including a Web-enabled terminal which automatically displays a Web page (a page on the World Wide Web) associated with a telephone number for which telephone calls are being answered by the telephone answering apparatus when a user answers a telephone call to the telephone number using the Web-enabled terminal.

According to the present invention, a telephone answering apparatus for answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus includes a storage device which stores information linking at least one of the telephone numbers for which telephone calls are being answered by the telephone answering apparatus to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number, a look-up device which looks up the telephone number of each telephone call answered by the telephone answering apparatus in the storage device and, if the telephone number is found in the storage device, retrieves the URL identifying the Web page associated with the telephone number from the storage device, a display, and a Web page display device which displays on the display the Web page associated with the telephone number of the telephone call answered by the telephone answering apparatus in response to the URL retrieved from the storage device.

BRIEF DESCRIPTION OF DRAWINGS

Fig. 1 shows a conceptual diagram of an example of a prior-art telephone answering apparatus.

5 Fig. 2 shows a conceptual diagram of an example of a telephone answering apparatus according to the present invention including a Web-enabled terminal which a user uses to answer telephone calls for a client.

10 Fig. 3 shows a conceptual example of the format of a client data file stored in a client database in the telephone answering apparatus according to the present invention shown in Fig. 2.

15 Fig. 4 shows a conceptual example of a Web browser screen which is displayed by the Web-enabled terminal according to the present invention shown in Fig. 2 when a user answers a telephone call for a client using the Web-enabled terminal.

20 Fig. 5 shows a flow chart of a process which Web-enabled terminal according to the present invention shown in Fig. 2 performs to automatically display a Web page from a client's Web site in the Web browser screen shown in Fig. 4 when a user answers a telephone call for the client using the Web-enabled terminal.

25 Fig. 6 shows a conceptual diagram wherein three telephone calls which have been answered by a user using the Web-enabled terminal according to the present invention shown in Fig. 2 are active simultaneously, and three copies of a Web browser corresponding to the three active answered telephone calls which have been opened by the Web-enabled terminal are displaying Web pages
30 associated with the telephone numbers of the three active answered telephone calls.

BEST MODE FOR CARRYING OUT THE INVENTION

35 Fig. 2 shows a conceptual diagram of an example of a telephone answering apparatus 15 according to the present invention which includes a telephony interface 4, an auto

attendant 5, a voice mail system 6, a text message system 7, a client database 16 storing client data files 17, a Web-enabled terminal 18, an audio headset 11, a display 12, a keyboard 13, a mouse 14, and an Internet or
5 intranet connection 19 connected to the Internet or an intranet 20. Many different connections suitable for use as Internet or intranet connection 19 are well known in the art.

10 Although Fig. 2 shows a mouse 14, which is a conventional example of a pointing device, it will be apparent to one of ordinary skill in the art that any other conventional pointing device may be used in place of mouse 14.

15 Although Fig. 2 shows a single Web-enabled terminal 18, a plurality of Web-enabled terminals may be provided when necessary, such as in a telephone answering service which answers telephone calls for a number of clients, or in a call center which answers telephone calls for a large client.

20 Telephony interface 4 is operatively connected by telephone line(s) 3 to a telco (telephone company) 2, such as a public or private switched telephone network.

Auto attendant 5 is operatively connected to telephony interface 4, voice mail system 6, and
25 Web-enabled terminal 18, and automatically answers telephone calls without requiring a user's attention for clients who have selected this option. Auto attendant 5 uses interactive voice response techniques to enable callers to use Touchtone keys to select how their
30 telephone calls are to be processed. For example, auto attendant 5 may enable the callers to select to have their telephone calls transferred to another telephone number, to voice mail system 6, or to Web-enabled terminal 18 for answering by a user.

35 Web-enabled terminal 18 is operatively connected to telephony interface 4, auto attendant 5, voice mail

system 6, text message system 7, client database 16,
audio headset 11, display 12, keyboard 13, mouse 14, and
Internet or intranet connection 19, and enables a user to
use audio headset 11, display 12, keyboard 13, and mouse
5 14 to answer and process telephone calls for clients
received from telco 2 over telephone line(s) 3. The
telephone calls may arrive at Web-enabled terminal 18
directly from telephony interface 4, or indirectly from
telephony interface 4 via auto attendant 5. Web-enabled
10 terminal 18 enables the user to take messages from
callers using audio headset 11 and record the messages
using display 12, keyboard 13, and mouse 14 for storage
in text message system 7, or to forward telephone calls
to voice mail system 6 at the callers' request. If
15 applicable, Web-enabled terminal 18 also enables the user
to provide other telephone call processing operations
specified by the clients using audio headset 11, display
12, keyboard 13, and mouse 14 as necessary, such as
taking orders from callers for products and services
20 offered by the clients.

The basic telephone call answering and processing
capabilities provided by Web-enabled terminal 18
according to the present invention are the same as those
provided by terminal 9 in prior-art telephone answering
25 apparatus 1 shown in Fig. 1. However, as will be
discussed in detail below, Web-enabled terminal 18
according to the present invention also has a telephone
number/Web page look-up feature and a Web browser feature
wherein Web-enabled terminal 18 automatically displays a
Web page from a client's Web site when a user answers a
30 telephone call for the client, and provides the user with
the capability of navigating through the client's Web
site while processing the telephone call. Terminal 9 in
prior-art telephone answering apparatus 1 shown in Fig. 1
35 does not have the telephone number/Web page look-up

feature or the Web browser feature of Web-enabled terminal 18 according to the present invention.

Client database 16 stores a client data file 17 for each client whose telephone calls are being answered by telephone answering apparatus 15. Client data file 17 according to the present invention includes data items which provide information identifying the client and specifying how the client's telephone calls are to be answered and processed. Many of these data items are the same as the data items in client data file 9 in client database 8 in prior-art telephone answering apparatus 1 shown in Fig. 1, and are well known in the art. However, as will be discussed in detail below, client data file 17 according to the present invention also includes certain data items which are not known in the prior art, but which are part of the present invention. Auto attendant 5 and the user of Web-enabled terminal 18 answer telephone calls for the client based on the data items in client data file 17, which include a data item specifying whether telephone calls for the client are to be answered initially by auto attendant 5 or by the user of Web-enabled terminal 18. Such a data item is well known in the art.

Fig. 3 shows a conceptual example of the format of a client data file 17 in client database 16 which includes the following data items:

- Client Number--The telephone number of a client for which telephone calls are to be answered by telephone answering apparatus 15.
- Client Name--The name of the client whose telephone calls are to be answered by telephone answering apparatus 15.
- Client Answer Phrase--An answer phrase which a user of Web-enabled terminal 18 is to speak when answering a telephone call for the client.

- Auto-pop URL--A URL (universal resource locator) identifying a Web page which is to be automatically displayed on display 12 by Web-enabled terminal 18 when the user of Web-enabled terminal 18 answers a telephone call for the client.
- Additional URLs--URLs identifying additional Web pages which may be displayed on display 12 by Web-enabled terminal 18 at the request of the user of Web-enabled terminal 18 while the user is processing a telephone call for the client.

The client name, the client number, and the client answer phrase in client data file 17 in client database 16 according to the present invention are well known in the art, and are also included in client data file 9 in client database 8 in prior-art telephone answering apparatus 1 shown in Fig. 1. The auto-pop URL and the additional URLs in client data file 17 in client database 16 according to the present invention are part of the present invention, and are not included in client data file 9 in client database 8 in prior-art telephone answering apparatus 1 shown in Fig. 1.

Although Fig. 3 shows only five data items in client data file 17, it will be apparent to one of ordinary skill in the art that client data file 17 may include additional data items which are well known in the art and which provide additional information specifying how the client's telephone calls are to be answered and processed.

Referring again to Fig. 2, the auto-pop URL in client data file 17 identifies a Web page which is hosted by a Web server 22 which is operatively connected to Internet or intranet 20 via an Internet or intranet connection 21. Although the Web page identified by the auto-pop URL is described in the present application as

being a Web page from a client's Web site, it may be any Web page which the client wants to be displayed to a user of Web-enabled terminal 18 when the user answers a telephone call for the client. Although Fig. 2 only
5 shows one Web server 22 connected to Internet or intranet 20, it will be apparent to one of ordinary skill in the art that many such Web servers are in fact connected to the Internet, and may be connected to an intranet. The additional URLs in client data file 17 identify Web pages
10 which are hosted by Web server 22 and/or other such Web servers connected to Internet or intranet 20.

When a user of Web-enabled terminal 18 answers a telephone call for a client, Web-enabled terminal 18 retrieves the client name, the client answer phrase, and
15 the auto-pop URL from the client data file 17 for the client in client database 16, retrieves the Web page identified by the auto-pop URL from Web server 22 via Internet or intranet connection 19, Internet or intranet 20, and Internet or intranet connection 21, and displays
20 the client name, the client answer phrase, and the Web page on display 12 for viewing by the user. This process is described below in greater detail with reference to Fig. 5.

Fig. 4 shows a conceptual example of a Web browser screen 23 which Web-enabled terminal 18 displays on
25 display 12. Web browser screen 23 includes a telephone toolbar 24 and a Web browser 25.

An incoming telephone call is displayed to the user of Web-enabled terminal 18 on telephone toolbar 24. The
30 user can answer the telephone call and perform all telephone call processing functions, such as dialing, paging, transferring, conferencing, patching, and accessing voice mail system 6, using telephone toolbar 24, keyboard 13, and mouse 14. These telephone call
35 processing functions are well known in the art.

Although Web browser screen 23 shown in Fig. 4 includes both telephone toolbar 24 and Web browser 25, telephone toolbar 24 and Web browser 25 operate independently of one another. Telephone toolbar 24 remains active even if the user is working in another application running on Web-enabled terminal 18 so that the user can continue to process telephone calls using telephone toolbar 24, keyboard 13, and mouse 14 even while working in the other application.

As shown in Fig. 4, telephone toolbar 24 displays the following information:

- Terminal Number--A number identifying Web-enabled terminal 18 within telephone answering apparatus 15.
- User Log-In Name--The name under which the user of Web-enabled terminal 18 is logged into telephone answering apparatus 15.
- Current Call State--The state of the telephone call which is currently displayed on telephone toolbar 24. Various call states are well known in the art.
- Current Call Timer--Shows how long the telephone call which is currently displayed on telephone toolbar 24 has been in its current state.
- Client Number--The telephone number for which the telephone call which is currently displayed on telephone toolbar 24 is being answered.
- Client Name--The name of the client whose telephone call is currently displayed on telephone toolbar 24.
- Client Answer Phrase--The answer phrase which the user of Web-enabled terminal 18 is to speak when answering the telephone call which is currently displayed on telephone toolbar 24.

- Call Kind--The kind of the telephone call which is currently displayed on telephone toolbar 24. Various call kinds are well known in the art.
- 5 • From--Information identifying the origin of the telephone call which is currently displayed on telephone toolbar 24.
- Reader Board--Information about what else is happening with telephone calls in telephone answering apparatus 15.
- 10 • On/Off--Indicates whether the user of Web-enabled terminal 18 is enabled to receive incoming telephone calls, where on = enabled and off = not enabled.
- Date--The current date.
- 15 • Time--The current time.

As shown in Fig. 4, Web browser 25 displays a Web page, and provides the following control buttons which the user of Web-enabled terminal 18 may activate using keyboard 13 and/or mouse 14:

- 20 • Back--Allows the user to move back through previously visited Web pages.
- Forward--Allows the user to move forward through previously visited Web pages.
- 25 • Refresh--Allows the user to instruct Web browser 25 to request that the Web page which is currently being displayed be refreshed from the Web server which is hosting the Web page.
- Stop--Allows the user to instruct Web browser 30 25 to stop requesting information for the Web page which is currently being displayed from the Web server which is hosting the Web page.
- Home--Allows the user to instruct Web browser 25 to return to a home Web page specified for Web-enabled terminal 18.
- 35 • Zoom--Allows the user to instruct Web browser 25 to toggle between a full screen mode in

which telephone toolbar 24 is hidden, and a partial screen mode as shown in Fig. 4 in which telephone toolbar 24 is visible.

- Cancel--Allows the user to close Web browser 25. Telephone toolbar 24 remains active and visible after Web browser 25 is closed.

Fig. 5 shows a flow chart of the process which Web-enabled terminal 18 performs to automatically display a Web page from a client's Web site in Web browser screen 23 when a user answers a telephone call for the client using Web-enabled terminal 18.

In step 26, a user answers a telephone call for a client using Web-enabled terminal 18. In step 27, Web-enabled terminal 18 looks up the client number in client database 16. The client number is typically the telephone number of the answered telephone call, but it may be any other number or label identifying the client, which other number or label may or may not be indicative of the telephone number of the answered telephone call. In step 28, if the client number is not found in one of client data files 17 in client database 16, the process proceeds to step 32 where it ends, while if the client number is found in one of client data files 17 in client database 16, the process proceeds to step 29. In step 29, Web-enabled terminal 18 retrieves the client name, the client answer phrase, and the auto-pop URL from the client data file 17 in client database 16 which includes the client number. In step 30, Web-enabled terminal 18 uses Web browser 25 to retrieve the Web page identified by the auto-pop URL from Web server 22 via Internet or intranet connection 19, Internet or intranet 20, and Internet or intranet connection 21. In step 31, Web-enabled terminal 18 displays Web browser screen 23 on display 12, showing the client number, the client name, and the client answer phrase in telephone toolbar 24, and

showing the Web page in Web browser 25. The process then proceeds to step 32 where it ends.

After the Web page identified by the auto-pop URL has been displayed, the user may use keyboard 12 and/or mouse 13 to retrieve the additional URLs in the client data file 17 for the client in client database 16 and instruct Web browser 25 to retrieve and display the Web pages identified by the additional URLs. The user may use keyboard 13 and/or mouse 14 to specify other URLs and instruct Web browser 25 to retrieve and display Web pages identified by the other URLs. The user may use mouse 14 to click on any hyperlinks in any Web page which is currently being displayed by Web browser 25 to instruct Web browser 25 to retrieve and display other Web pages identified by the hyperlinks. The user may use keyboard 13 and/or mouse 14 to activate the Web browser control buttons shown in Fig. 4 to navigate through previously visited Web sites. The user may use keyboard 13 and/or mouse 14 to enter information into any form which may appear on any Web page which is currently being displayed by Web browser 25.

Web-enabled terminal 18 allows the user to open Web browser 25 on demand by using keyboard 13 and/or mouse 14, which allows the user to access Web pages even if the user is not currently processing a telephone call, or if the telephone number for which the user is currently processing a telephone call does not have any Web pages associated with it, as would be the case if client data file 17 for the client for which the user is currently processing a telephone call does not include either an auto-pop URL or additional URLs.

Web-enabled terminal 18 enables the user to dial telephone numbers using a dial request function to initiate outgoing telephone calls, and enables the user to use the same dial request function to instruct Web browser 25 to retrieve and display a specific Web page by

inputting the URL of the Web page as a URL dial string having the following format:

"www.world-wide-web-address.com"U

5 The URL of the Web page is inside the quotation marks, and the "U" identifies the dial string as a URL dial string. The auto-pop URL and the additional URLs in client data file 17 are stored in this format.

10 Web-enabled terminal 18 enables a plurality of telephone calls answered by the user to be active simultaneously, and enables the user to move between the active answered telephone calls with a single command from keyboard 13 or mouse 14 to select one of the active answered telephone calls for processing. The single command may be a single keystroke on keyboard 13 or a
15 single operation of mouse 14.

Each time the user of Web-enabled terminal 18 answers a telephone call while one or more other answered telephone calls are still active and the newly answered telephone call is to a telephone number having a Web page associated therewith, Web-enabled terminal 18 opens a new
20 copy of Web browser 25 corresponding to the newly answered telephone call, and the newly opened copy of Web browser 25 displays the Web page associated with the telephone number of the newly answered telephone call.

25 As the user moves between the active answered telephone calls to select one of the active answered telephone calls for processing, Web-enabled terminal 18 displays the copy of Web browser 25 which is displaying the Web page associated with the telephone number of the
30 active answered telephone call which the user has selected for processing.

Fig. 6 shows a conceptual diagram wherein three telephone calls which have been answered by the user of Web-enabled terminal 18 are active simultaneously, and
35 three copies of Web browser 25 corresponding to the three active answered telephone calls which have been opened by

Web-enabled terminal 18 are displaying Web pages associated with the telephone numbers of the three active answered telephone calls. Active answered telephone call 1 has been selected for processing, so the copy of Web browser 25 corresponding to active answered telephone call 2 which has been selected for processing is displayed on top of the copies of Web browser 25 corresponding to active answered telephone calls 1 and 3 which have not been selected for processing, such that only the copy of Web browser 25 corresponding to active answered telephone call 2 which has been selected for processing is visible.

Web-enabled terminal 18 has a Web browser data exchange feature which enables it to pass data about the telephone call which is currently being displayed on telephone toolbar 24 to Web browser 25. Such data may be required by the Web page currently being displayed by Web browser 25, and may include the following data items, some of which were described above with reference to Fig. 4:

- User Log-In Name--The name under which the user of Web-enabled terminal 18 is logged into telephone answering apparatus 15.
- User Initials--The initials of the user of Web-enabled terminal 18.
- Terminal Number--A number identifying Web-enabled terminal 18 within telephone answering apparatus 15.
- Client Number--The telephone number for which the telephone call which is currently displayed on telephone toolbar 24 is being answered.
- Client Name--The name of the client whose telephone call is currently displayed on telephone toolbar 24.
- Automatic Number Identification--The telephone number of the caller who made the telephone

call which is currently displayed on telephone toolbar 24, obtained by an automatic number identification service such as Caller ID.

- 5 • Call Kind--The kind of the telephone call which is currently displayed on telephone toolbar 24. Various call kinds are well known in the art.
- Date--The current date.
- Time--The current time.

10 If necessary, Web-enabled terminal 18 may also pass other data about the telephone call which is currently being displayed on telephone toolbar 24 to Web browser 25.

15 It is noted that the connections between the elements of telephone answering apparatus 15 shown in Fig. 2 are conceptual connections, and do not necessarily represent actual physical connections. As will be apparent to one of ordinary skill in the art, the conceptual connections shown in Fig. 2 may be implemented with many different actual physical connections, which
20 may include direct-wired connections, bus connections, network connections, and any other connections which are known in the art.

Furthermore, it is noted that telephone answering apparatus 15 shown in Fig. 2 is merely exemplary, and
25 many modifications of telephone answering apparatus 15 will be apparent to one of ordinary skill in the art.

Examples of devices which may be used to implement telephony interface 4, auto attendant 5, text message system 6, voice mail system 7, and client database 16 of
30 telephone answering apparatus 15 according to the present invention shown in Fig. 2 are disclosed in U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 discussed above in the Background Art section of the
35 present application.

U.S. Patent Nos. 4,916,726 and 5,420,852 each include a microfiche appendix listing a computer program which may be used to implement telephony interface 4, auto attendant 5, text message system 6, voice mail
5 system 7, and client database 16 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 using IBM AT-compatible PCs.

It is noted that the auto-pop URL and the additional URLs in client data file 17 in client database 16 of
10 telephone answering apparatus 15 according to the present invention shown in Fig. 2 are part of the present invention, and are not disclosed in U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726.
15 However, U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 disclose a client database storing client data files which corresponds to client database 8 storing client data files 9 in
20 prior-art telephone answering apparatus 1 shown in Fig. 1, and one of ordinary skill in the art would be able to modify the client data files disclosed in U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726
25 to include the auto-pop URL and the additional URLs of the present invention.

An example of a device which may be used to implement telephony interface 4, auto attendant 5, text message system 6, voice mail system 7, and client
30 database 16 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 is the commercially available Amtelco Infinity CTI server which was discussed above in the Background Art section of the present application.

35 It is noted that the auto-pop URL and the additional URLs in client data file 17 in client database 16 of

telephone answering apparatus 15 according to the present invention shown in Fig. 2 are part of the present invention, and are not present in the Amtelco Infinity CTI server. However, the Amtelco Infinity CTI server includes a client database storing client data files which corresponds to client database 8 storing client data files 9 in prior-art telephone answering apparatus 1 shown in Fig. 1, and one of ordinary skill in the art would be able to modify the client data files of the Amtelco Infinity CTI server to include the auto-pop URL and the additional URLs of the present invention.

Alternatively, telephony interface 4 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 may be implemented by a conventional TAPI (telephone application programming interface)-compliant telephony interface, such as a TAPI-compliant PBX (private branch exchange). Many such TAPI-compliant telephony interfaces are well known in the art.

If telephony interface 4 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 is implemented by a TAPI-compliant telephony interface as discussed above, auto attendant 5, text message system 6, voice mail system 7, and client database 16 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 may be implemented by the Amtelco Infinity CTI server. In this embodiment, the telephony interface functions of the Amtelco Infinity CTI server would not be used because the TAPI-compliant telephony interface would provide the necessary telephony interface functions.

Alternatively, if telephony interface 4 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 is implemented by a TAPI-compliant telephony interface as discussed above, auto attendant 5, text message system 6, voice mail system 7, and client database 16 of telephone answering apparatus 15 according

to the present invention shown in Fig. 2 may be implemented by devices which are disclosed in U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 as discussed above.

An example of a device which may be used to implement the telephone number/Web page look-up feature, the Web page display feature, and the Web browser data exchange feature of Web-enabled terminal 18 of telephone answering apparatus 15 according to the present invention shown in Fig. 2 is a commercially available IBM AT-compatible PC.

A computer program for implementing the telephone number/Web page look-up feature, the Web page display feature, and the Web browser data exchange feature of Web-enabled terminal 18 according to the present invention, may be stored in any suitable processor-readable medium which is known in the art, such as a CD-ROM, a floppy disk(s), a hard drive, DAT, ROM, RAM, etc. When the computer program is read from the processor-readable medium and is executed by a processor, such a microprocessor in an IBM AT-compatible PC, it causes the processor to perform the steps necessary to provide the telephone number/Web page look-up feature, the Web page display feature, and the Web browser data exchange feature of Web-enabled terminal 18 according to the present invention.

As discussed above, the basic telephone call answering and processing capabilities provided by Web-enabled terminal 18 according to the present invention are the same as those provided by terminal 9 in prior-art telephone answering apparatus 1 shown in Fig. 1, and suitable techniques and computer programs for implementing these basic telephone call answering and processing capabilities are well known in the art.

While the present invention has been described in terms of various embodiments, it is noted that numerous modifications may be made to these embodiments without departing from the spirit and scope of the present invention as defined in the appended claims, and that all such modifications are intended to fall within the scope of the appended claims.

INDUSTRIAL APPLICABILITY

The present invention is applicable to telephone answering apparatuses and methods.

CLAIMS

We claim:

1. A telephone answering apparatus for answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus, the telephone answering apparatus comprising:
 - a storage device which stores information linking at least one of the telephone numbers for which telephone calls are being answered by the telephone answering apparatus to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number;
 - a look-up device which looks up the telephone number of each telephone call answered by the telephone answering apparatus in the storage device and, if the telephone number is found in the storage device, retrieves the URL identifying the Web page associated with the telephone number from the storage device;
 - a display; and
 - a Web page display device which displays on the display the Web page associated with the telephone number of the telephone call answered by the telephone answering

apparatus in response to the URL retrieved from the storage device.

5 2. A telephone answering apparatus according to claim 1, further comprising an answering device which answers telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus.

10 3. A telephone answering apparatus according to claim 2, wherein the answering device includes a terminal which enables a user of the terminal to answer telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus; and wherein the terminal includes the look-up device and the Web page display device.

15 4. A telephone answering apparatus according to claim 3, wherein the user is an operator of a telephone answering service; and wherein the terminal is an operator station of the telephone answering service.

20 5. A telephone answering apparatus according to claim 3, wherein the user is an operator of a call center; and wherein the terminal is an operator station of the call center.

25 6. A telephone answering apparatus according to claim 3, wherein the user is an individual user; and wherein the terminal is a personal computer or a workstation used by the individual user.

30 7. A telephone answering apparatus according to claim 3, wherein the terminal includes an input device

which enables the user to answer a telephone call, which is waiting to be answered by the user, to a telephone number for which telephone calls are being answered by the telephone answering apparatus.

5 8. A telephone answering apparatus according to claim 7, wherein when the telephone call answered by the user is a telephone call to a telephone number having a Web page associated therewith, the Web page display device displays on the display the Web page associated
10 with the telephone number of the telephone call answered by the user in response to the telephone call being answered by the user and the URL retrieved from the storage device.

15 9. A telephone answering apparatus according to claim 7, wherein the Web page display device includes a Web browser; and

 wherein when the telephone call answered by the user is a telephone call to a telephone number having a Web page associated therewith, the Web browser displays
20 on the display the Web page associated with the telephone number of the telephone call answered by the user in response to the telephone call being answered by the user and the URL retrieved from the storage device.

25 10. A telephone answering apparatus according to claim 7, wherein the terminal enables a plurality of telephone calls answered by the user to be active simultaneously.

30 11. A telephone answering apparatus according to claim 10, wherein the input device enables the user to move between the active answered telephone calls to select one of the active answered telephone calls for processing.

12. A telephone answering apparatus according to claim 10, wherein when any of the active answered telephone calls is a telephone call to a telephone number having a Web page associated therewith, the Web page display device displays on the display the Web page associated with the telephone number of the active answered telephone call in response to the active answered telephone call being answered by the user and the URL retrieved from the storage device.

13. A telephone answering apparatus according to claim 12, wherein the input device enables the user to move between the active answered telephone calls to select one of the active answered telephone calls for processing; and

wherein as the user moves between the active answered telephone calls to select one of the active answered telephone calls for processing, the Web page display device displays the Web page associated with the telephone number of the active answered telephone call which the user has selected for processing if the selected active answered telephone call is to a telephone number having a Web page associated therewith.

14. A telephone answering apparatus according to claim 10, wherein the input device enables the user to issue a single command with the input device to move between the active answered telephone calls to select one of the active answered telephone calls for processing.

15. A telephone answering apparatus according to claim 14, wherein the input device includes a keyboard; and

wherein user issues the single command with a single keystroke on the keyboard.

16. A telephone answering apparatus according to claim 14, wherein the input device includes a pointing device; and

5 wherein the user issues the single command with a single operation of the pointing device.

17. A telephone answering apparatus according to claim 3, wherein the terminal displays on the display an indication that a telephone call to a telephone number for which telephone calls are being answered by the
10 telephone answering apparatus is waiting to be answered by the user.

18. A telephone answering apparatus according to claim 3, wherein the answering device further includes an auto attendant which automatically answers telephone
15 calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus without requiring the attention of the user; and

wherein the storage device stores information specifying whether telephone calls to each of the
20 telephone numbers for which telephone calls are being answered by the telephone answering apparatus are to be answered initially by the user or by the auto attendant.

19. A telephone answering apparatus according to claim 18, wherein when the auto attendant answers a
25 telephone call to a telephone number for which telephone calls are being answered by the telephone answering apparatus, the auto attendant gives a caller who has made the telephone call the option to have the telephone call transferred to the terminal for answering by the user.

30 20. A telephone answering apparatus according to claim 1, wherein the Web page associated with the

telephone number of the telephone call answered by the telephone answering apparatus is located on the Internet.

21. A telephone answering apparatus according to claim 1, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering apparatus is located on an intranet.

22. A telephone answering method for answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method, the telephone answering method comprising the steps of:

storing information linking at least one of the telephone numbers for which telephone calls are being answered by the telephone answering method to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number;

looking up the telephone number of each telephone call answered by the telephone answering method in the stored information and, if the telephone number is found in the stored information, retrieving the URL identifying the Web page associated with the telephone number from the stored information; and

displaying the Web page associated with the telephone number of the telephone call answered by the telephone answering method in response to the URL retrieved from the stored information.

23. A telephone answering method according to claim 22, further comprising the step of answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method.

24. A telephone answering method according to claim 23, wherein the answering step includes the step of a

user of a terminal answering, with the terminal, telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method.

- 5 25. A telephone answering method according to claim 24, wherein the user is an operator of a telephone answering service; and

 wherein the terminal is an operator station of the telephone answering service.

- 10 26. A telephone answering method according to claim 24, wherein the user is an operator of a call center; and

 wherein the terminal is an operator station of the call center.

- 15 27. A telephone answering method according to claim 24, wherein the user is an individual user; and

 wherein the terminal is a personal computer or a workstation used by the individual user.

- 20 28. A telephone answering method according to claim 24, wherein the terminal includes an input device; and

 wherein the user uses the input device to answer a telephone call, which is waiting to be answered by the user, to a telephone number for which telephone calls are being answered by the telephone answering method.

- 25 29. A telephone answering method according to claim 28, wherein the displaying step further includes the step of, when the telephone call answered by the user is a

30 telephone call to a telephone number having a Web page associated therewith, displaying to the user the Web page associated with the telephone number of the telephone call answered by the user in response to the telephone

call being answered by the user and the URL retrieved from the stored information.

5 30. A telephone answering method according to claim 28, wherein the displaying step further includes the step of, when the telephone call answered by the user is a telephone call to a telephone number having a Web page associated therewith, displaying to the user, using a Web browser, the Web page associated with the telephone number of the telephone call answered by the user in
10 response to the telephone call being answered by the user and the URL retrieved from the stored information.

31. A telephone answering method according to claim 28, wherein a plurality of telephone calls answered by the user may be active simultaneously.

15 32. A telephone answering method according to claim 31, further comprising the step of the user using the input device to move between the active answered telephone calls to select one of the active answered telephone calls for processing.

20 33. A telephone answering method according to claim 31, wherein the displaying step further includes the step of, when any of the active answered telephone calls is a telephone call to a telephone number having a Web page associated therewith, displaying to the user the Web page
25 associated with the telephone number of the active answered telephone call in response to the active answered telephone call being answered by the user and the URL retrieved from the stored information.

30 34. A telephone answering method according to claim 33, further comprising the step of the user using the input device to move between the active answered

telephone calls to select one of the active answered
telephone calls for processing; and

5 wherein the displaying step further includes
the step of, as the user moves between the active
answered telephone calls to select one of the active
answered telephone calls for processing, displaying to
10 the user the Web page associated with the telephone
number of the active answered telephone call which the
user has selected for processing if the selected active
answered telephone call is to a telephone number having a
Web page associated therewith.

35. A telephone answering method according to claim
31, further comprising the step of the user issuing a
single command with the input device to move between the
15 active answered telephone calls to select one of the
active answered telephone calls for processing.

36. A telephone answering method according to claim
35, wherein the input device includes a keyboard; and
 wherein the user issues the single command with
20 a single keystroke on the keyboard.

37. A telephone answering method according to claim
35, wherein the input device includes a pointing device;
and
 wherein the user issues the single command with
25 a single operation of the pointing device.

38. A telephone answering method according to claim
24, further comprising the step of displaying to the user
an indication that a telephone call to a telephone number
for which telephone calls are being answered by the
30 telephone answering method is waiting to be answered by
the user.

39. A telephone answering method according to claim 24, wherein the answering step further includes the step of automatically answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method without requiring the attention of the user; and

wherein the storing step further includes the step of storing information specifying whether telephone calls to each of the telephone numbers for which telephone calls are being answered by the telephone answering method are to be answered initially by the user or automatically without requiring the attention of the user.

40. A telephone answering method according to claim 39, further comprising the step of, when a telephone call to a telephone number for which telephone calls are being answered by the telephone answering method has been answered automatically without requiring the attention of the user, giving a caller who has made the telephone call which has been answered automatically the option to have the telephone call transferred for answering by the user.

41. A telephone answering method according to claim 22, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering method is located on the Internet.

42. A telephone answering method according to claim 22, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering method is located on an intranet.

43. A processor-readable medium having stored therein a program which, when executed by a processor, causes the processor to perform a telephone answering

method for answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method, the telephone answering method comprising the steps of:

- 5 storing information linking at least one of the telephone numbers for which telephone calls are being answered by the telephone answering method to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number;
- 10 looking up the telephone number of each telephone call answered by the telephone answering method in the stored information and, if the telephone number is found in the stored information, retrieving the URL identifying the Web page associated with the telephone
- 15 number from the stored information; and
- displaying the Web page associated with the telephone number of the telephone call answered by the telephone answering method in response to the URL retrieved from the stored information.

- 20 44. A processor-readable medium according to claim 43, wherein the telephone answering method further comprises the step of answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method.

- 25 45. A processor-readable medium according to claim 44, wherein the answering step includes the step of a user of a terminal answering, with the terminal, telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering
- 30 method.

46. A processor-readable medium according to claim 45, wherein the user is an operator of a telephone answering service; and

wherein the terminal is an operator station of the telephone answering service.

47. A processor-readable medium according to claim 45, wherein the user is an operator of a call center; and
5 wherein the terminal is an operator station of the call center.

48. A processor-readable medium according to claim 45, wherein the user is an individual user; and
10 wherein the terminal is a personal computer or a workstation used by the individual user.

49. A processor-readable medium according to claim 45, wherein the terminal includes an input device; and
15 wherein the user uses the input device to answer a telephone call, which is waiting to be answered by the user, to a telephone number for which telephone calls are being answered by the telephone answering method.

50. A processor-readable medium according to claim 49, wherein the displaying step further includes the step
20 of, when the telephone call answered by the user is a telephone call to a telephone number having a Web page associated therewith, displaying to the user the Web page associated with the telephone number of the telephone call answered by the user in response to the telephone
25 call being answered by the user and the URL retrieved from the stored information.

51. A processor-readable medium according to claim 49, wherein the displaying step further includes the step
30 of, when the telephone call answered by the user is a telephone call to a telephone number having a Web page associated therewith, displaying to the user, using a Web

browser, the Web page associated with the telephone number of the telephone call answered by the user in response to the telephone call being answered by the user and the URL retrieved from the stored information.

5 52. A processor-readable medium according to claim 49, wherein a plurality of telephone calls answered by the user may be active simultaneously.

10 53. A processor-readable medium according to claim 52, wherein the telephone answering method further comprises the step of the user using the input device to move between the active answered telephone calls to select one of the active answered telephone calls for processing.

15 54. A processor-readable medium according to claim 52, wherein the displaying step further includes the step of, when any of the active answered telephone calls is a telephone call to a telephone number having a Web page associated therewith, displaying to the user the Web page associated with the telephone number of the active
20 answered telephone call in response to the active answered telephone call being answered by the user and the URL retrieved from the stored information.

25 55. A processor-readable medium according to claim 54, wherein the telephone answering method further comprises the step of the user using the input device to move between the active answered telephone calls to select one of the active answered telephone calls for processing; and

30 wherein the displaying step further includes the step of, as the user moves between the active answered telephone calls to select one of the active answered telephone calls for processing, displaying to

the user the Web page associated with the telephone number of the active answered telephone call which the user has selected for processing if the selected active answered telephone call is to a telephone number having a Web page associated therewith.

56. A processor-readable medium according to claim 52, wherein the telephone answering method further comprises the step of the user issuing a single command with the input device to move between the active answered telephone calls to select one of the active answered telephone calls for processing.

57. A processor-readable medium according to claim 56, wherein the input device includes a keyboard; and wherein the user issues the single command with a single keystroke on the keyboard.

58. A processor-readable medium according to claim 56, wherein the input device includes a pointing device; and wherein the user issues the single command with a single operation of the pointing device.

59. A processor-readable medium according to claim 45, wherein the telephone answering method further comprises the step of displaying to the user an indication that a telephone call to a telephone number for which telephone calls are being answered by the telephone answering method is waiting to be answered by the user.

60. A processor-readable medium according to claim 45, wherein the answering step further includes the step of automatically answering telephone calls to telephone numbers for which telephone calls are being answered by

the telephone answering method without requiring the attention of the user; and

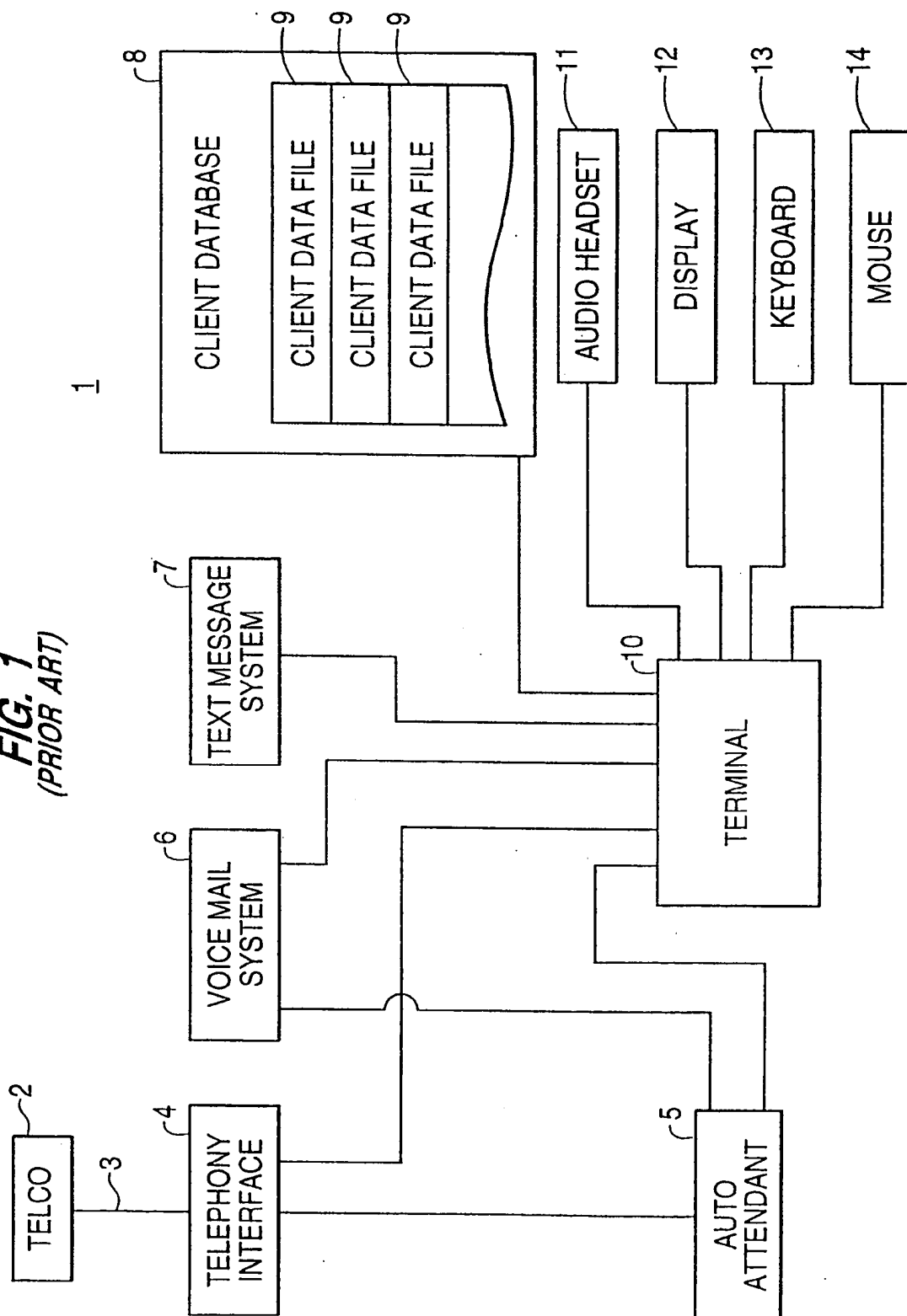
5 wherein the storing step further includes the step of storing information specifying whether telephone calls to each of the telephone numbers for which telephone calls are being answered by the telephone answering method are to be answered initially by the user or automatically without requiring the attention of the user.

10 61. A processor-readable medium according to claim 60, wherein the telephone answering method further comprises the step of, when a telephone call to a telephone number for which telephone calls are being answered by the telephone answering method has been
15 answered automatically without requiring the attention of the user, giving a caller who has made the telephone call which has been answered automatically the option to have the telephone call transferred for answering by the user.

20 62. A processor-readable medium according to claim 43, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering method is located on the Internet.

25 63. A processor-readable medium according to claim 43, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering method is located on an intranet.

FIG. 1
(PRIOR ART)



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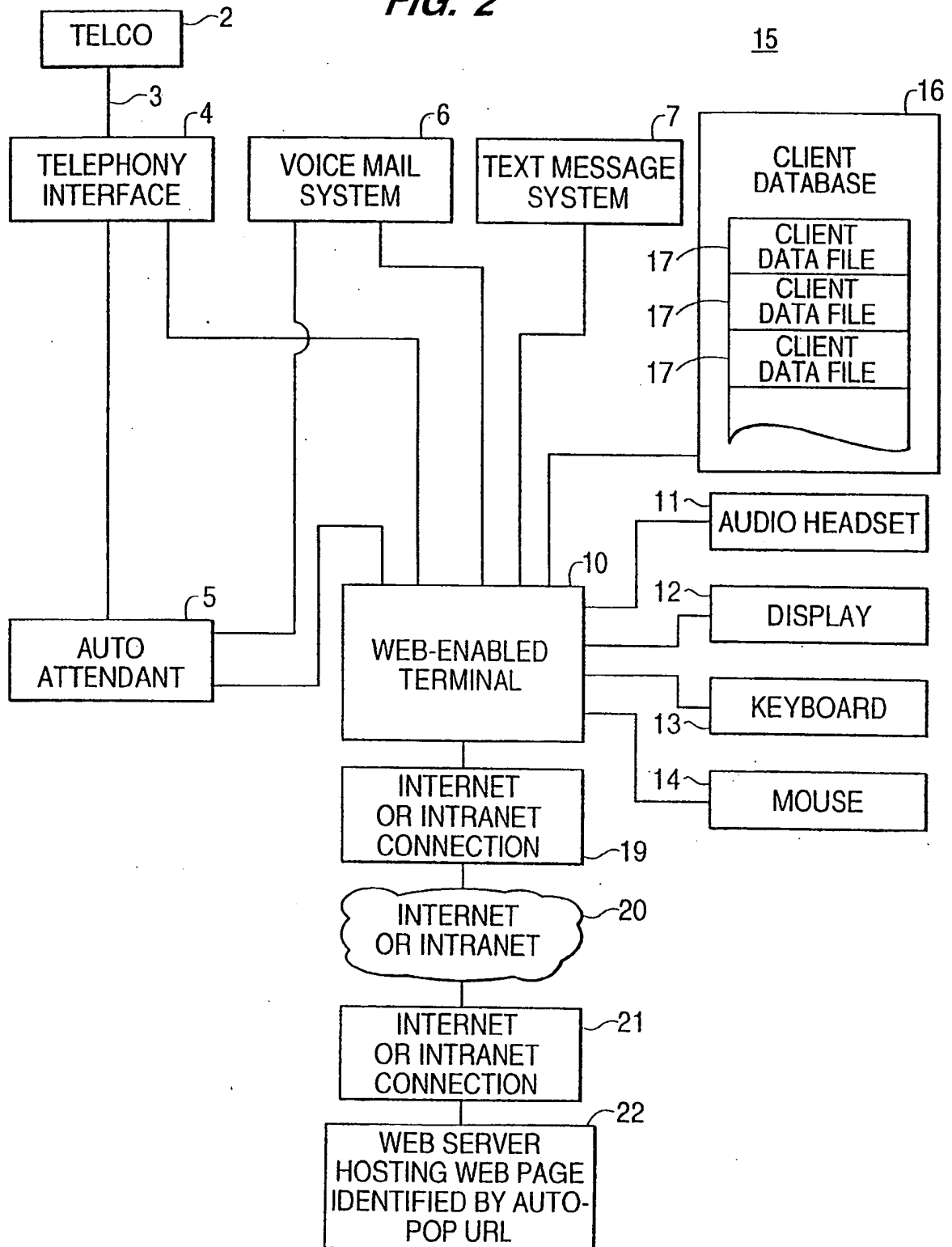
FIG. 2

FIG. 3

CLIENT DATA FILE

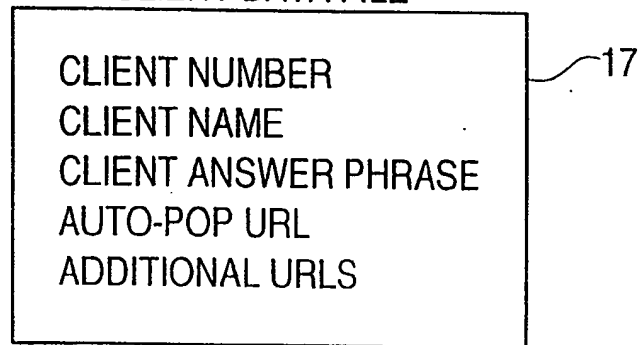
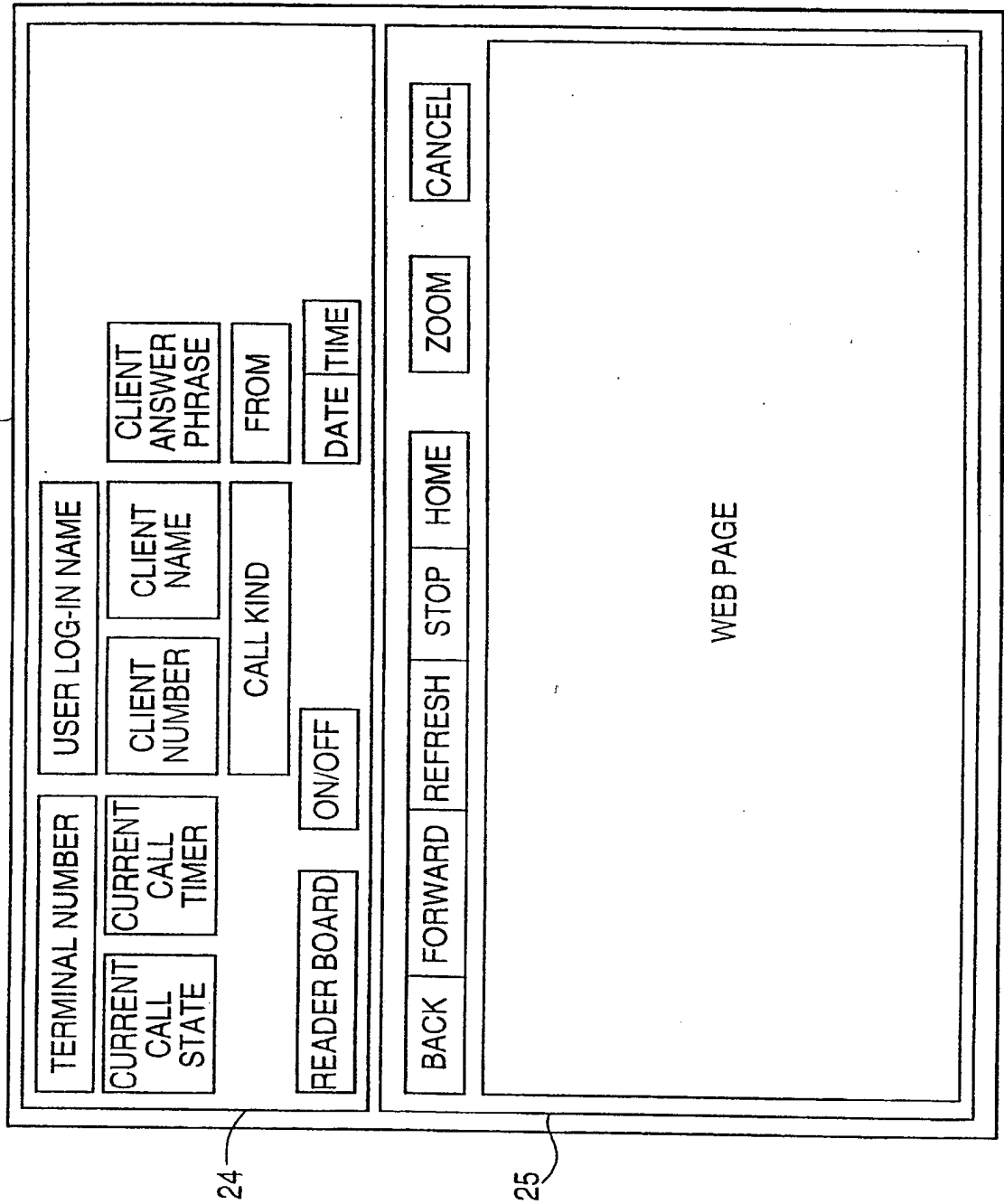
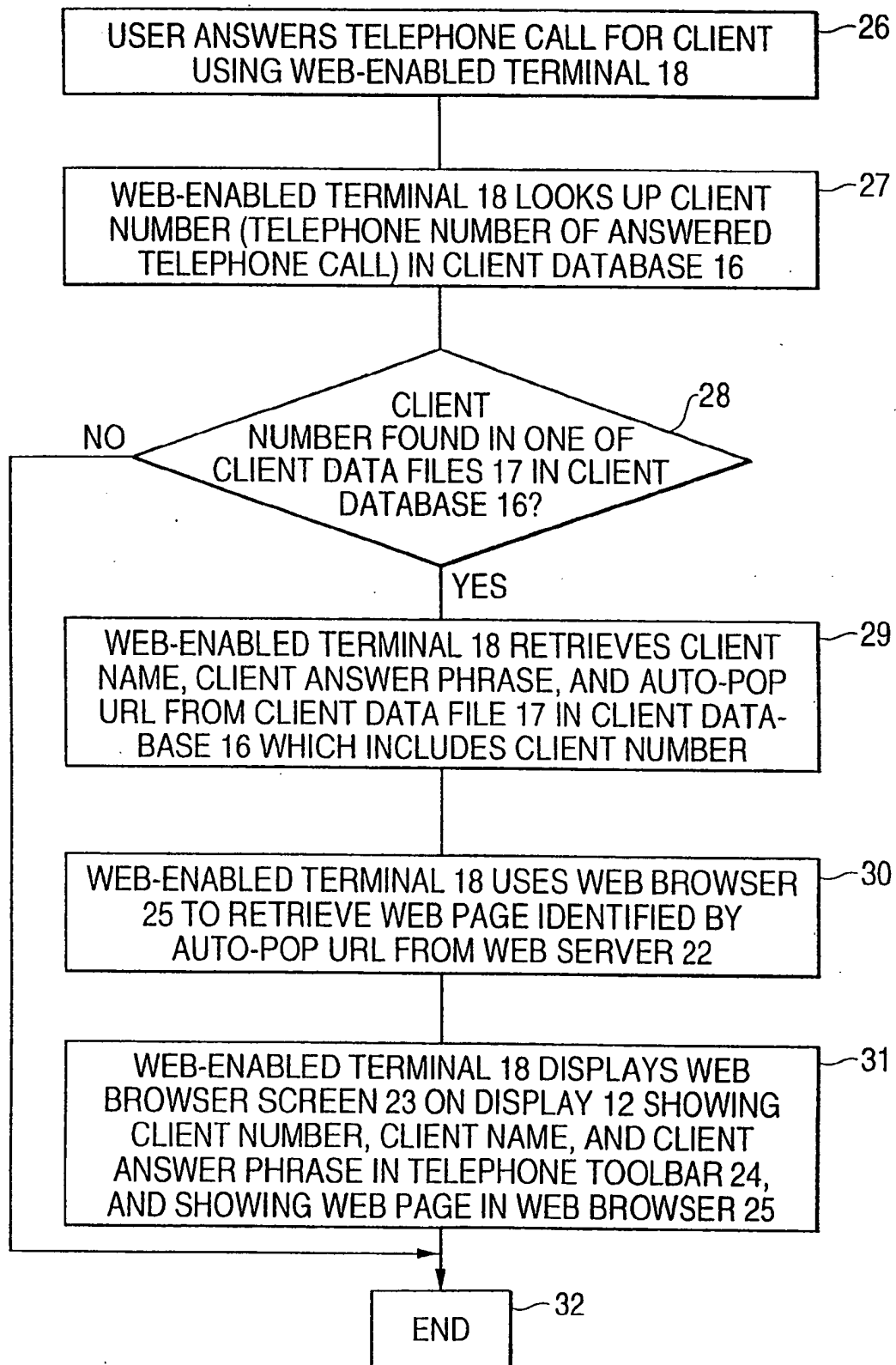


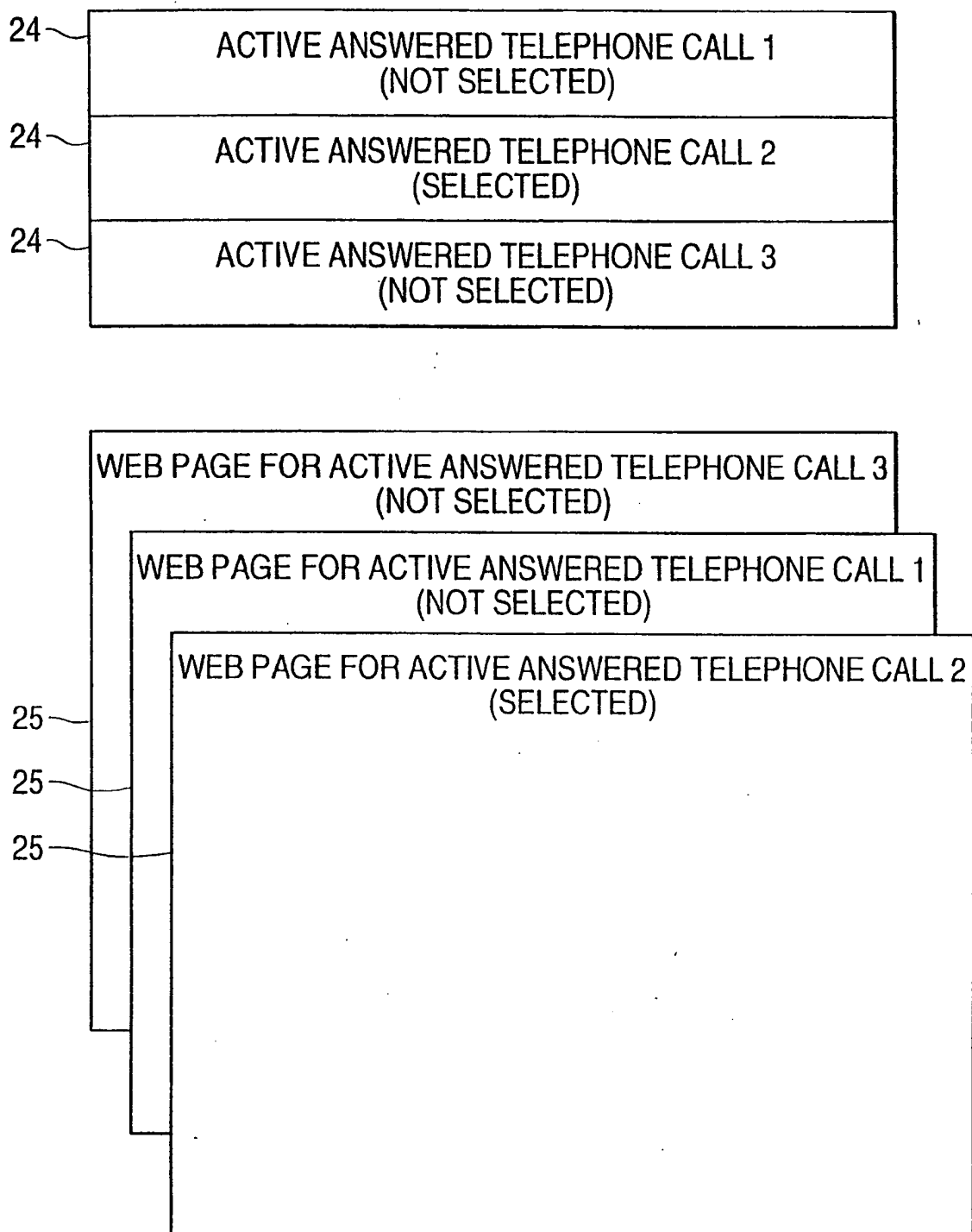
FIG. 4



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FIG. 5

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FIG. 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/06593

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H04M 3/42, 3/487, 3/51 US CL : 379/265, 88.17, 93.23, 142 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 379/265, 88.17, 93.23, 142, 67.1, 70, 88.19, 88.2, 88.21, 90.01, 93.01, 93.17, 127, 266, 267, 308, 309 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Metacrawler Internet search: terms: Webcall Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Extra Sheet.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	US 5,884,032 A (BATEMAN et al.) 16 March 1999, col.2,ln.22-38; col.3,ln.63-col.4,ln.22; col.8,ln.62-col.9,ln.47.	1-63
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A*	document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means		
P document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 01 JUNE 2000		Date of mailing of the international search report 29 JUN 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer SCOTT L. WEAVER <i>For Regina Jagan</i> Telephone No. (703) 308-6974

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/06593

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

EAST

search terms: Call center, answering service, SOHO, Internet, world wide web, URL, universal resource locator, web page, HTML document, telephone number

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